Advanced Power and Energy Storage Systems for Cross-Cutting Space Applications

NOTE: The Solicitations and topics listed on this site are copies from the various SBIR agency solicitations and are not necessarily the latest and most up-to-date. For this reason, you should use the agency link listed below which will take you directly to the appropriate agency server where you can read the official version of this solicitation and download the appropriate forms and rules.

The official link for this solicitation is: http://sbir.gsfc.nasa.gov/solicitations

Agency:
National Aeronautics and Space Administration

Release Date:
November 14, 2014
Branch:
n/a

Open Date:
November 14, 2014
Program / Phase / Year:
SBIR / Phase I / 2015

Application Due Date:
n/a
Solicitation:
2015 SBIR

Close Date:
January 28, 2015
Topic Number:
Z1

Description:
The Advanced Space Power and Energy Storage Systems topic area will focus on technologies that generate power and/or store energy within the space environment. Functional areas, sub-topics, of interest include: Solid State Power Generation: Thermoelectric and thermionic component materials will be investigated for the creation of electricity from thermal energy in space applications. There is particular interest in high Z materials and materials with low work functions applicable to thermionic energy conversion. The focus of the topic area will be to generate working devices by the end of an SBIR Phase II. Material performance and testing may be the focus of the Phase I activity as long as explicit discussion of eventual working device is included in the Phase I proposal and the intent of the effort is to use Phase II follow on effort to build and test the working system. Modeling and Simulation: Modeling and Measurements: Innovative model development to will provide insight into design decisions and trade-offs for advanced propulsion and power systems are sought. The focus is on improving the correlation between experiments and predictions by developing and validating multi-scale physics-based models. The goal is to reduce the development time of future systems needed for space exploration.